

# SEALS

TECHNOLOGY



0222

Magazine for customers and partners | 客户杂志



Explained: Seals

High pressure applications

Training of CNC lathe operators





## EDITORIAL

Dear readers,

although daily business has lately been influenced by health crises, political turbulences, war and supply chain difficulties, we have not lost hope for better times and are still motivated to offer products designed in accordance with the latest state-of-the-art, as well as an excellent customer service.

I am pleased to present the past months' news and stories from and about Seal Maker.

Due to the positive responds in Europe we have extended our web-shop and integrated product availabilities also in our Singapore and Shanghai branches. By providing our clients in the Asia-Pacific area an overview on short-term available products, order processing will become quicker and more effective. In addition, you will find regular information about new products, special offers and some other relevant information for your daily business.

"Service is the seal of our quality" – the motto from our 2006 poster series has become an integral part of our company philosophy. By means of outstanding service, honest and fair business conduct, as well as permanent personal self development and improvement of knowledge we are striving to strengthen our clients' and our success on a long term. All this will be guaranteed by a team willing and able to represent our values all time and everywhere. You will learn more about some team members on the following pages. They are always pleased to be at your disposal.

Do you also know the situation when business partners, such as banks, lawyers or consultants, but also friends or children ask you what you are doing at work or what a seal is? Primarily when they have no or only few basic knowledge of machine engineering, they often respond with amazed, confused or asking looks. You will find an illustration including some useful explanations and the most important terms from sealing technology inside this issue. I wish you good luck for your next explaining attempts!

Moreover, in this issue we report on challenges when sealing high pressure applications, as well as on the specific machine operator training and how you can extend your knowledge about current trends of our industry, this year in the course of the *SEAL DAY* in Mexico City.

Finally, we are pleased to present a series of pictures of our new building, as well as this year's summer interns and our *Seal Maker Summer festival* which we could celebrate again after two years of compulsive break. I hope you will enjoy reading our articles and wish you lots of success and optimism for the future!

Yours,  
Johann Glocknitzer

亲爱的读者们,

尽管最近日常业务受到疫情影响、政治动荡、战争和供应链困难的影响,但我们并没有对更好的未来失去希望,仍然积极提供符合最新技术水平产品,以及出色的客户服务。

我很高兴介绍过去几个月来自和关于 Seal Maker 的新闻和故事。

由于在欧洲网上商城的正面反馈,在新加坡和上海分公司,我们也提升了我们的网上商店,并完善了产品的可获得性,为我们在亚太地区的客户提供近期可用产品的概述,并使订单处理更快、更多有效的。此外,您还可以找到有关新产品、特别优惠和其他一些与您的日常业务相关的信息。

“服务是我们质量的印记”——我们 2006 年海报系列的座右铭已成为我们公司理念不可分割的一部分。通过出色的服务、诚实和公平的商业行为,以及永久的个人自我发展和知识的提高,我们正在努力加强我们的客户和我们的长期合作的成功。所有这一切都将由一支愿意并能够随时随地代表我们价值观的团队来保证。您将在以下页面中了解有关某些团队成员的更多信息。他们总是很高兴为您服务。

您是否也知道当银行、律师或顾问等商业伙伴,以及朋友或孩子问您在工作中做什么或密封件是什么时的情况?主要是当他们没有或只有很少的机器工程基础知识时,他们通常会以惊讶、困惑或询问的表情做出回应。您将在本期中找到一个插图,其中包括一些关于密封技术有用的解释和最重要的术语。祝您下次解释尝试好运!

此外,在本期中,我们将报告高压密封应用的挑战,特定机器操作的教育,以及在今年墨西哥城的 *SEAL DAY* 期间,如何扩展您对我们行业当前趋势的了解。

最后,我们很高兴展示我们新大楼的一系列照片,以及今年的暑期实习计划和我们的“Seal Maker”夏日派对,经过两年的疫情封控,我们可以再次庆祝。我希望您会喜欢阅读我们的文章,并祝您的未来充满成功与乐观!

此致  
Johann Glocknitzer



**Webshop  
available  
in seven  
languages**



# Webshop and stock availability Singapore and China 🛒

For the daily business of Seal Maker customers, it is essential to have the all the necessary information quickly and easily available. This is exactly what Seal Maker wants to provide, for this reason customers from the Singapore and China branches will be offered inventory queries.

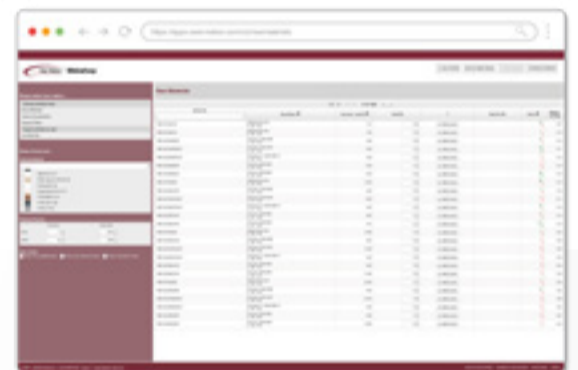
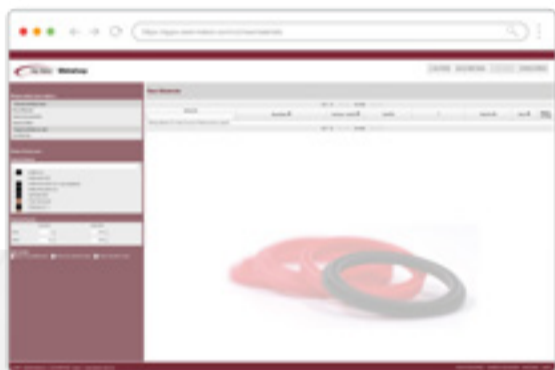
## The advantages are obvious:

- Availabilities can be viewed at all locations
- Prices, as well as corresponding discounts will be automatically displayed
- Orders can be placed directly via the webshop function
- Less handling effort - items can be collected in the shopping basket for a longer period of time and the subsequent order can be finalized later on

对于 Seal Maker 客户的日常业务, 快速、轻松地获得所有必要的信息极为重要。这正是 Seal Maker 想要提供的, 因此新加坡和中国分公司的客户将可查询公司库存。

## 优点很明显:

- 可以在所有位置查看产品的可获得性。
- 将显示价格以及相应的折扣。
- 可以通过网上商店功能直接下订单。
- 更少量的处理工作——物品可以在购物篮中保存更长的时间, 随后的订单可以稍后完成



## ACTIVATING YOUR ACCOUNT

If you wish to order via our **WEBSHOP**, please contact our sales department. To activate your account, please send an e-mail including the following information:

- ✓ 1. Company name
- ✓ 2. First and last name
- ✓ 3. E-mail (for sending the order document)
- ✓ 4. User name (for login)

You will then receive your account details via an e-mail confirmation from our sales department.

## 激活您的帐户

如果您想通过我们的网上商店订购, 请联系我们的销售部门。要激活您的帐户, 请发送包含以下信息的电子邮件:

- ✓ 1. 公司名称
- ✓ 2. 名字和姓氏
- ✓ 3. 电子邮件 (用于发送订单文件)
- ✓ 4. 用户名 (用于登录)

然后, 通过我们销售部门的电子邮件确认, 您将收到您的帐户详细信息。

## QUESTIONS?

Our sales team will be happy to answer any questions you may have. Furthermore, you will find all necessary information on our homepage: [www.seal-maker.com/en/products/webshop-information](http://www.seal-maker.com/en/products/webshop-information)

## 问题?

我们的销售团队将很乐意回答您的任何问题。此外, 您可以在我们的主页上找到所有必要的信息: [www.seal-maker.com/zh/产品/webshop-information/](http://www.seal-maker.com/zh/产品/webshop-information/)

# Sales & Export Management

Straightforward, efficient and personal. These are our main values when handling our business, starting with the customer's inquiry, throughout the entire ordering procedure.

Seal Maker relies on its export managers to represent our sales department accordingly. They provide support to customers worldwide and act as competent contact persons for all sales, sealing and material-related questions. Seal Maker maintains a partnership-friendly relationship with its customers based on open and honest communication. For this reason, export managers are travelling regularly in order to visit and support customers on site. Based on this partnership, many issues can be discussed and solved in advance from face-to-face.

Above that, Seal Maker can rely on a broad industry experience of altogether more than 100 years.

Due to the fact that our business partners are spread across the world, knowledge and training of foreign languages in one of the company's central themes. We are proud of our export managers who cover the following languages: Russian, Spanish, Portuguese, French, Italian and Chinese in addition to German and English. Within the sales team, even other foreign languages such as Croatian or Romanian are spoken.

直接、高效以及个性化， 这些是我们处理业务时的主要价值观，从客户的询问开始，贯穿整个订购过程。

Seal Maker 由外贸经理来相应地代表我们的销售部门。 他们为全球客户提供支持，并担任所有销售、密封和材料相关问题的主管联系人。基于开放和诚实的沟通，Seal Maker与客户保持友好的合作关系。 出于这个原因，出口经理会定期出差，以便在现场访问和支持客户。 基于这种合作关系，许多问题可以面对面地提前讨论和解决。

能做到这些，源于Seal Maker 100多年来的广泛行业经验。

由于我们的业务合作伙伴的国际性，外语的知识和培训是我们公司的中心主题之一。 我们为涵盖以下语言的外贸经理感到自豪：俄罗斯，西班牙语，葡萄牙语，法语，意大利语和中文（除了德语和英语外）。销售团队甚至可以说其他外国语言，例如克罗地亚或罗马尼亚语。



Georg Peschl



Katharina Meyer



Alexander Haspel



Michael Bazkow



Jie Yang  
GM at Seal Maker China



Tiago Medeiros



Yvonne Chang  
Seal Maker Asia Pacific



Thomas Schriefl



## INTERNATIONAL SALES MANAGEMENT



**Reinhard Hausberger**  
*International Sales Manager*

Reinhard Hausberger started his professional career as a lathe and later CNC software developer in an electric motor plant. His CNC experience brought him – initially as a trainer for the local staff – to an internationally active sealing company. Due to the company's strong international presence, Reinhard moved away from classical technology to technical sales with stations in Europe, the USA, South Africa and Asia. In order to further develop his economic skills, he completed a diploma at the Business Academy in Stuttgart in addition to his job. His previous professional career includes international sales management and management positions.

For more than 34 years Reinhard has been working professionally on the subject of seals and in particular on machined seals.

Since 2020 he has been a member of the Seal Maker family and since 2022 he has been integrated into the team of Alexander Haspel. Internally, he is dedicated to the basic training of employees on the topics of sealing and application technology.

In addition to the export managers, Reinhard Hausberger supports customers with his extensive knowledge of the sealing industry and helps international companies in particular in their desire to make the most of the potential of the machined seal.

Seal Maker is very pleased to be able to offer this expert knowledge to its customers and employees.

Reinhard Hausberger 的职业生涯始于车床，后来在一家电动机厂担任 CNC 软件开发人员。他的 CNC 经验使他（最初是当地员工的培训师）进入了一家充满活力的国际密封材料公司。由于公司强大的国际影响力，Reinhard 从传统技术转向技术销售，在欧洲、美国、南非和亚洲均设有服务站点。为了进一步提高他的商业技巧，除了工作之外，他还获得了斯图加特商学院的文凭。他之前的职业生涯包括国际销售管理和职位。

34 多年来，Reinhard 一直致力于密封件领域的专业工作，尤其是机加工密封件。

自 2020 年以来，他一直是 Seal Maker 家族的一员，自 2022 年以来，他已加入 Alexander Haspel 团队。对内，他致力于对员工进行密封和应用技术主题的基础培训。

除了担任外贸经理之外，Reinhard Hausberger 还以其对密封行业的广泛知识为客户提供支持，尤其是帮助跨国公司充分发挥机加工密封件的潜力。

Seal Maker 很高兴能够向其客户和员工提供这种专业知识。

### Georg Peschl

**Languages:**  
English, French, German  
**Regions:**  
Europe, French-speaking Africa

### Michael Bazkow

**Languages:**  
English, Russian, German  
**Regions:**  
USA, Eastern Europe, Russia

### Yang Jie

**Languages:**  
English, Chinese, German  
**Regions:**  
China

### Thomas Schrieffl

**Languages:**  
English, German  
**Regions:**  
Africa, Middle East, India

### Katharina Meyer

**Languages:**  
English, Spanish, French, Portuguese, German  
**Regions:**  
Spain, Portugal

### Yvonne Chang

**Languages:**  
English, Chinese, Hokkien  
**Regions:**  
South East Asia, Republic of Korea, Oceania

### Tiago Medeiros

**Languages:**  
English, Spanish, Portuguese  
**Regions:**  
Latin & South America

### Reinhard Hausberger

**Languages:**  
English, German  
**Regions:**  
Worldwide

The machined seal has long since become an integral part of the sealing industry. While it was once only a quick alternative solution, the mechanical and industrial engineering sector relies increasingly on custom made combinations of profiles and materials which are perfectly designed and suitable for a certain application.

This double page of the *SEALS Technology* is intended to give an example of a quick and easy-to-explain overview of the functions and special features of seals.

Feel free to put this information on the wall as a poster or explain quickly and easily to interested parties that a seal is far more than just a "rubber ring" or a necessary evil.

机械密封早已成为密封行业不可或缺的一部分。虽然它曾经只是一种快速的替代解决方案，但机械和工业工程部门越来越依赖于定制的产品（形状和材料），这些定制产品经过精心设计，适合特定应用。

本双页“密封件技术”旨在提供一个快速、易于解释的示例，概述密封件的功能和特点。

请随意将这些信息作为海报贴在墙上，或快速、轻松地向感兴趣的各方解释，密封不仅仅是一个“橡皮圈”或“不可避免的灾祸”。

# Explained

What does a seal actually do? What are the different types of movement? What is the importance of seals? What is the role of seals in a system?

## WHAT IS THE ACTUAL FUNCTION OF A SEAL?

Technically speaking the term seal is used to refer to elements that have the task of preventing or limiting unwanted material transfers (e.g. oil) from one place to another. This not only contributes to environmental protection by avoiding the release of unwanted substances, but also to move heavy loads.

Simply: If a tap is closed and still dripping, the reason therefore is the seal.

Somewhat more complex: If the bucket of a machine does not move, it might be because the cylinder (which is responsible for this movement) cannot produce the required pressure on the piston because a seal is defective and does not perform its function. This means that the system cannot produce the necessary pressure.

## 密封圈的实际作用是什么？

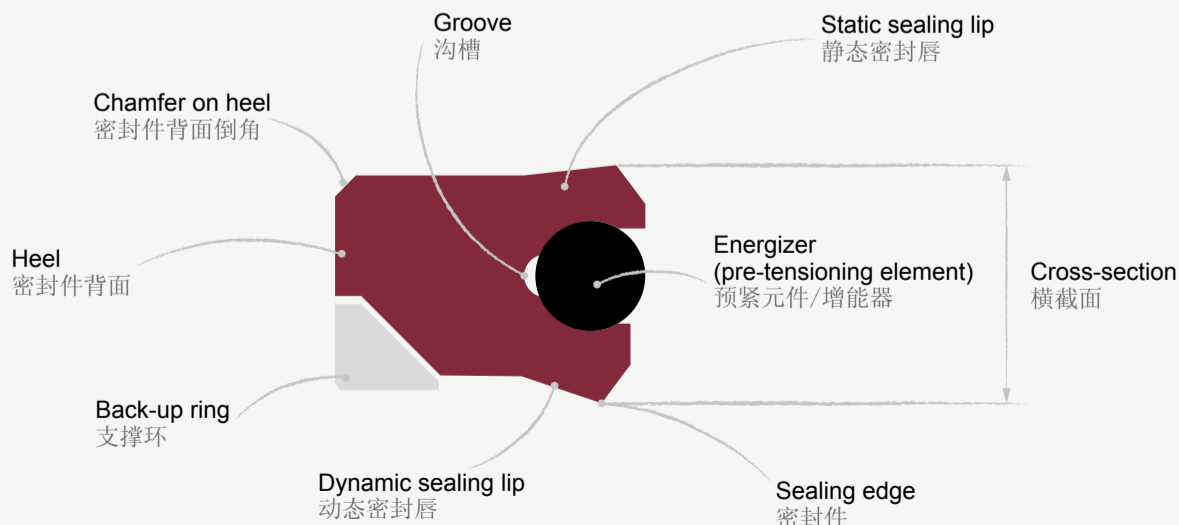
在技术上，术语密封用于指代具有防止或限制材料（例如油）从一个地方转移到另一个地方的零部件。这不仅有助于保护环境免受有害物质的释放，还有助于移动重物。

简单地说：如果水龙头关闭并且仍然滴水，原因是密封出了问题。

稍微复杂一点：如果机器的铲斗不动，可能是因为气缸（负责此运动）无法在活塞上建立相应的压力，因为密封件有缺陷并且无法发挥其功能。这意味着系统不能产生需要的压力。

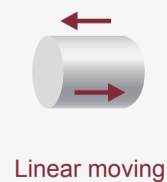
## THE MOST IMPORTANT TERMS / 重要的术语

Profile RS04 - Asymmetric rod seal



## TYPES OF MOVEMENT AND THEIR IMPORTANCE

Speed and movement types are also decisive for the design and composition of the functional surfaces of a seal.

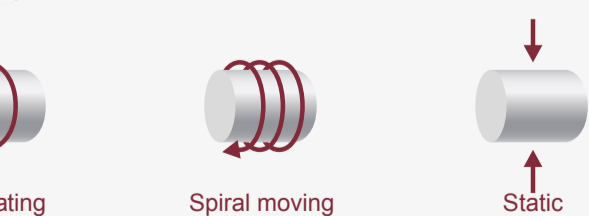


# ed: Seals

What  
a seal  
do? How  
directions  
movement of  
categorised?  
important  
a seal?

## 运动类型及其重要性

速度和运动类型对于密封件的功能表面的设计和组成也是决定性的。

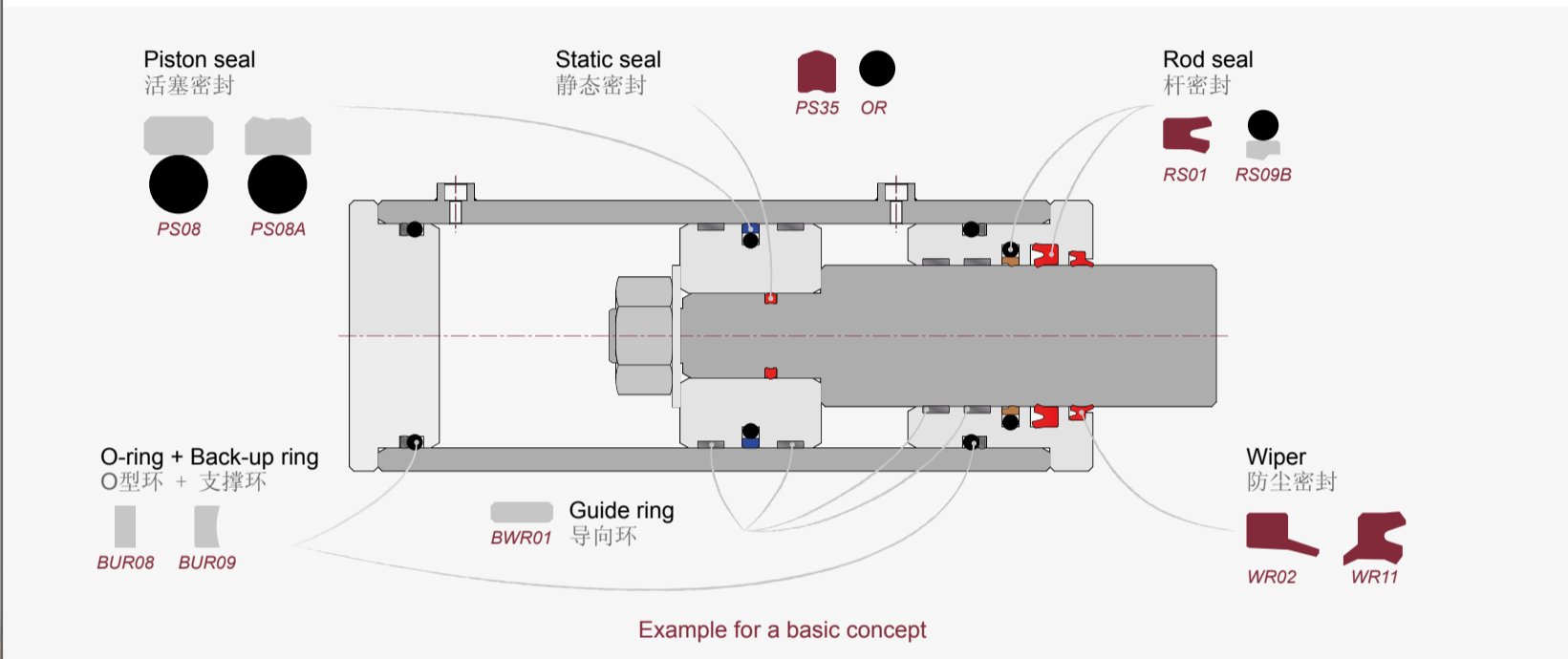


## THE MOST IMPORTANT TYPES OF SEALS

In a classic hydraulic cylinder there is a lot more than one seal. According to their function, seals can be divided into the following types:

## 重要的密封类型

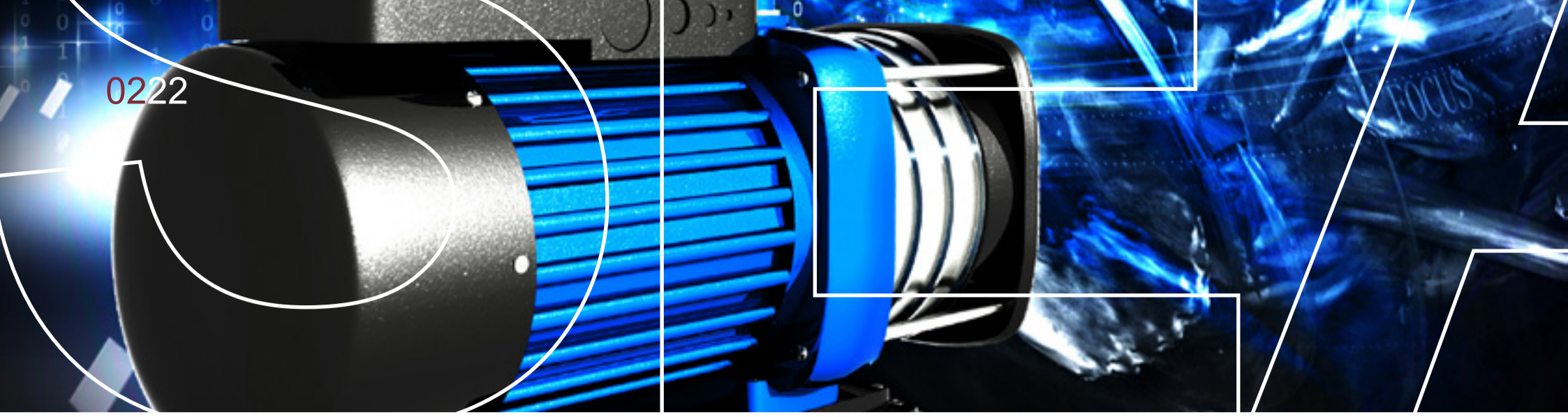
在传统的液压缸中，密封件不止一个。根据其功能，密封可分为以下类型：



## 7 QUESTIONS AS TO SMART SEALING

高性能密封件7要素

<b>PRES S URE</b>	What pressure must the seal withstand? (working pressure / test pressure / pressure shocks)	密封件承受的压力? (工作压力/试验压力/压力冲击?)
<b>MOV E MENT</b>	Which types of movement affect the seal? (direction of movement / velocities / duration / cycles)	哪些类型的运动会影响密封? 移动方向/速度/持续时间/周期?)
<b>TEMPER A TURE</b>	What temperature is the seal exposed to?	密封件的工作温度?
<b>INSTAL L ATION</b>	What does the mounting space for the seal look like? (surface condition / damage / dimensions)	密封件的安装空间如何? (表面状况/损坏/尺寸)
<b>MED I A</b>	What media is the seal in contact with?	密封件接触的介质?
<b>DESIG N</b>	What type of seal is needed?	密封件的类型?
<b>OPERATIN G TIME</b>	Are there any specific expectations concerning seal life? Service intervals?	密封件的期望寿命? 服务间隔时间?



# High pressure applications

In order to be able to offer Seal Maker's customers the best sealing solutions for complex problems, the *Product Management Seals* department was founded. Christian Gutnik and his team can in total draw on several decades of sealing knowledge, and Seal Maker customers all over the world rely on their expertise.

In recent years Seal Maker has also been able to expand its experience particularly in the field of high-pressure applications. Among other things, projects for high-pressure pumps, homogenizers, piston pumps, pressure amplifiers and high-pressure nozzles at pressures above 4,000 bar could be realized.

This variety of special sealing solutions in high pressure applications, together with the team's experience in seal design enables Seal Maker to offer seals for almost all applications.

In addition to the seal design, the material used also plays a decisive role in high-pressure applications. In order to meet these requirements, Seal Maker uses high-performance plastics in combination with special elastomers (special elastomer grades) for these projects.

为了能够为密封制造商的客户 提供针对复杂问题的最佳密封解决方案，公司成立了密封产品管理部门。Christian Gutnik和他的团队拥有几十年的密封知识，世界各地的密封制造商客户都依赖于他们的专业知识。

近年来，Seal Maker 累积了大量的行业经验，特别是在高压应用领域。目前，压力高于 4,000 bar 的高压泵、均质器、活塞泵、压力放大器和高压喷嘴的项目已经可以实现。

高压应用中的各种特殊密封解决方案，加上团队在密封设计方面的经验，使 Seal Maker 能够为几乎所有应用场景提供密封产品。

除了密封设计，所用材料在高压应用中也起着决定性作用。为了满足这些要求，Seal Maker 将高性能塑料与特殊弹性体（特殊弹性体等级）进行结合，用于这些项目。



**Christian Gutnik**  
Head of Product Management Seals

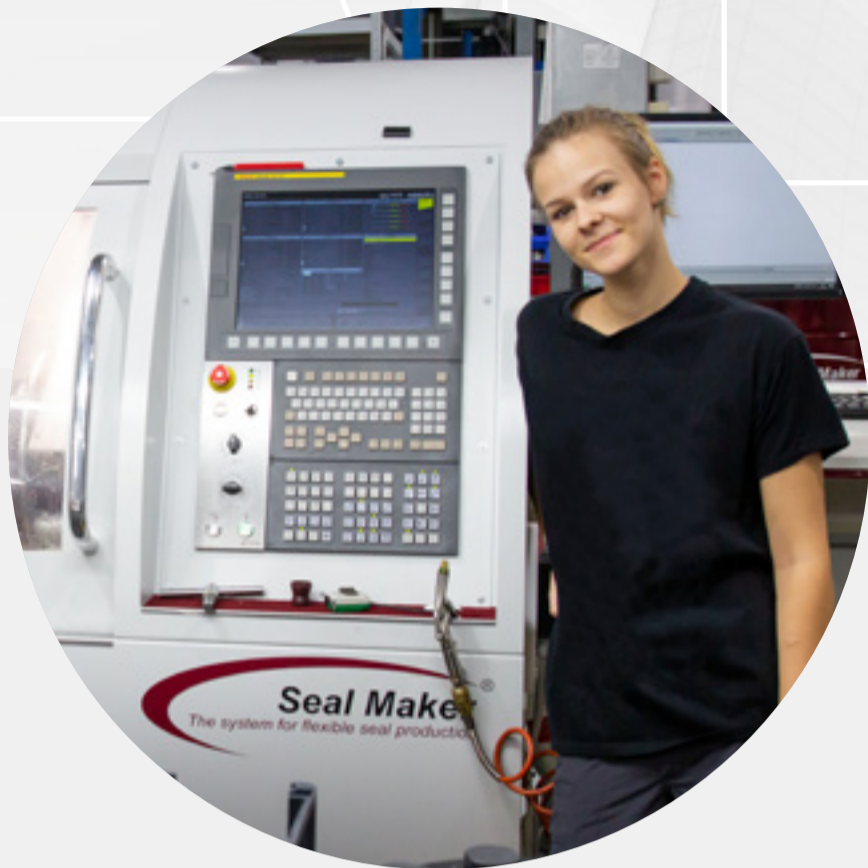
*When designing seals for high-pressure applications, it is advisable to rely on expert knowledge and experience, as inaccuracies can have serious consequences. Together with my department we can proudly refer to several decades of sealing experience and look forward to supporting you in the realization of your next project.*

在为高压应用设计密封件时，建议利用专家知识和经验，因为这些领域的错误可能会造成严重后果。 与我的部门一起，我们可以自豪地参考几十年的密封经验，并期待支持您实现下一个项目。



Seal for a high-pressure injection nozzle





# Training of CNC lathe operators



For years, customers have relied on Seal Maker's know-how concerning seal design and material recommendations. Experience and know-how in the area of seal production are even more extensive.

In particular, the machining of plastics has a lot of pitfalls for CNC lathes. Even experienced metal lathe operators sometimes reach their limits.

Thus, it is even more important to prepare young colleagues accordingly for the challenges of the machined seal production. Seal Maker has developed a training plan for young/aspiring lathe operators to ensure that internal training courses take place in a structured and sustainable manner.

**During 6 months of intensive training the following skills, both in theory and in practice, will be taught:**

- Basic training of the SML500e – operation, setup, special features
- Quality checks for seal – error catalogue, identifying sources of error
- Safe handling of measuring instruments – slide gauges, digital measuring methods
- The optimal tool – grinding, measuring, corrections
- CNC control unit – operation, functions, error interpretation
- *SML System Software 4* – Operation, Functions, Tips & Tricks
- Manual programming - program structure, program changes

In addition, during their trainings, the colleagues are supported by skilled and experienced workers with advice and action.

多年来,客户一直乐于利用 Seal Maker 在密封设计和材料推荐领域的专业知识。其实,在密封件生产领域 Seal Maker 的经验和专业知识更加丰富。

尤其是塑料的加工对于数控车床来说有很多的隐患。即使是经验丰富的金属车床操作员有时也会达到他们的瓶颈。

因此,更重要的是让年轻同事相应地为机加工密封件生产的挑战做好准备。Seal Maker 为年轻/有抱负的车床操作员制定了培训计划,以确保内部培训课程以结构化和可持续的方式进行。

在为期 6 个月的强化培训中,将教授以下技能,理论与实践兼具:

- SML500e 的基本培训——操作、设置、特殊功能
- 密封质量检查——错误目录,识别错误来源
- 测量仪器的安全操作——滑规、数字测量方法
- 最佳工具 - 磨削、测量、校正
- CNC 控制——操作、功能、错误解释
- *SML System* 软件 4 - 操作、功能、提示和技巧
- 手动编程 - 程序结构、程序更改

此外,在培训期间,同事们得到了熟练和经验丰富的工人的建议和演示。

## DAY SEAL

Already for the third time Seal Maker will host a *SEAL DAY* - this time in Mexico City. Interested people from all over Latin America will have the opportunity to learn about the latest developments in the sealing industry and at the same time to refresh and expand their knowledge of sealing technology.

We wish all participants an interesting and prosperous event!

Seal Maker 已经第三次举办“密封日”活动了——这次是在墨西哥城。来自拉丁美洲各地的感兴趣的人士将有机会了解密封行业的最新发展,同时更新和扩展他们对密封技术的了解。

我们祝愿所有参与者都能举办一个有趣而繁荣的活动!



# FROM EXTENSION

## August 2021



Start of construction and preparation of foundations

开始建设及地基准备

## Sept

Concrete work for the statics of the future office space & preparation of the steel construction for the new production area (production of polyurethane)

未来办公空间混凝土施工和新生产区钢结构的准备(聚氨酯生产)

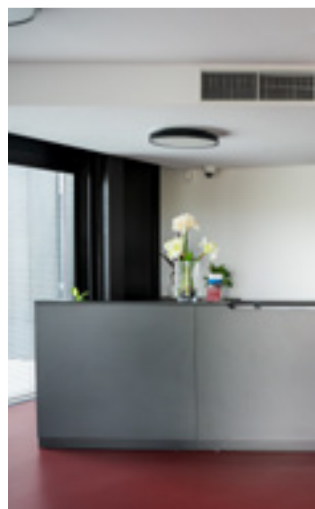
## October 2021



## December 2021



## February 2022

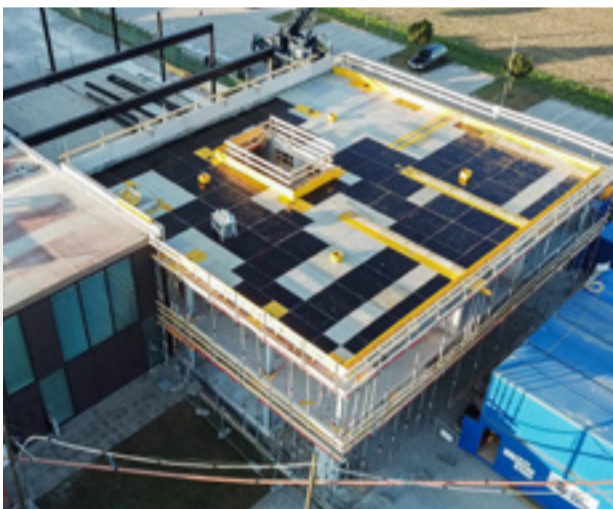


# TO TRANSFORMATION

September  
2021



November  
2021



Assembly of the facade elements and initial preparations for the new ventilation system in the production area

外立面元件的组装和生产区新通风系统的初步准备



Assembly of aluminum/glass facade of the new office premises and implementation of the interior design

新办公场所的铝/玻璃幕墙的组装和室内设计的实施

January  
2022



March  
2022



Moving into the new building and commissioning of the modern polyurethane production

搬入新办公楼并投产现代聚氨酯生产



# Experience for young talents!

Seal Maker has provided internships for young people during their summer holidays for many years. Also this year, Seal Maker was pleased to welcome seven teenagers aged 15 - 21.

In order to offer them the best possible training program, we planned and prepared their internships in advance.

For the students with a technical background three different production areas - lathe operation, assembly, quality assurance - and also warehousing and internal logistics stood on the agenda. The girls and boys could not only observe experienced colleagues at individual work steps, but were also allowed to work on their own.

In the areas of IT/software development, materials development and the general back office, they could look behind the scenes and gain first experiences of the working world.

Internships show young people opportunities in a wide range of possible professional careers and can motivate them to also choose less-known professions.

多年来，Seal Maker 一直让年轻人在暑假期间到公司实习。同样在今年，Seal Maker 很高兴将我们公司介绍给 7 位 15 至 21 岁的青少年。

为了给他们提供最好的培训计划，我们提前计划和准备了他们的实习。

对于具有技术背景的学生，三个不同的生产领域 - 车床操作、装配、质量保证 - 以及我们的库存以及内部物流都在该计划中。女孩和男孩不仅可以在个人操作学习阶段观察经验丰富的同事，也可以独立工作。

在 IT/软件开发、材料开发和一般后台办公室领域，他们可以了解部门运作并获得职场的初步经验。

实习有助于向年轻人展示各种可能的职业生涯的机会，并激励他们选择鲜为人知的职业。

# Summer Festival

Finally, in June 2022, after a 4-years break, we could organize another summer festival for all our staff members and their families.

The Summer Festival has been celebrated since the beginning of the company's history. Every two years, colleagues spend some time together in a relaxed atmosphere, dining and drinking to the sound of good music until the late evening hours thereby getting to know each other better.

In the meantime, the Summer Festival has become one of the milestones for everyone at Seal Maker and must not be missed. It was particularly gratifying that Tiago Medeiros (Export Manager for Latin & South America based in São Paulo, Brazil) was also able to attend this time.

最终，在2022年六月，在中断4年后，我们全体员工及家庭成功的举办了一次夏日节日派对。

自公司成立以来，就一直有举行夏季派对的传统。每两年，同事们都会在一个轻松的氛围中度过时光，吃东西喝饮料，当然还有好听的音乐，直到深夜，并进一步了解彼此。

由此，夏日派对已成为Seal Maker每个人的固定活动之一，不容错过。特别令人欣慰的是，Tiago Medeiros（总部位于巴西圣保罗的拉丁美洲和南美洲出口经理）也能出席此次会议。



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